

or gummy substances cannot be borne, and an exhausting diarrhoea continues, we should substitute raw yolk of egg in a decoction of grits.—*Med. Times and Gaz.*, Jan. 24, from *Journal für Kinderkrankheiten*. Bd. 26.

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## SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

37. *Compression in the Treatment of Aneurism*.—MR. BLENKINS, of the Grenadier Guards, read to the Army Medical and Surgical Society (Dec. 6th, 1856), the report of a case of aneurism which had occurred in a soldier of his regiment, and had been cured in twenty-four days. The application of a seven pounds weight in the groin had been found to be the most efficient and least irksome means of applying the pressure. The contents of the sac were not absorbed, suppuration took place, and the whole fibrinous mass forming the interior of the tumour eventually escaped through the opening which had been made for the discharge of the matter. The mass, on admeasurement, was found to be four inches in diameter, having almost a circular form. The sac subsequently contracted and closed, and the man recovered the use of his limb. The author of the paper then referred to all the known statistics of aneurism by deligation and compression, showed how immensely superior the results were in favour of the latter mode of treatment, and expressed his conviction that no case should be ligatured primarily that was adapted for this mode of treatment. He expressed himself as decidedly opposed to the principles laid down by Mr. Syme, of Edinburgh, on this head, as, when compression failed, it rendered the secondary operation more certain of success by diminishing the risk of gangrene. In every case of popliteal aneurism which had occurred in the Brigade of Guards, since the revival of this method by the Dublin surgeons, this means had been resorted to, and in every instance with success. Mr. Blenkins looked forward to favourable results from the application of pressure to the distal side of the artery, in cases where it could not be adapted to the proximal end of the vessel. He also alluded to a preparation which was on the table, demonstrating a successful cure by compression for popliteal aneurism, which had occurred in the Coldstream Guards.

MR. PELHAM related a case of popliteal aneurism of the left leg, which had occurred at Chatham, under the care of Mr. Dartnell, in which two tourniquets or wooden clumps had been applied over the femoral artery; one at about a hand's-breadth over the knee, and the other below the groin; the clumps being tightened or relaxed alternately, as the pressure of one or other became irksome. On the fourth day, pulsation had entirely ceased in the tumour; and on the sixth day, the pressure of the tourniquets was loosened; on the day following they were removed altogether, and at the end of somewhat less than three months he was discharged for duty in the garrison, where he remained under observation for two months longer, and then rejoined his regiment in perfect health. Long prior to his departure, the tumour had entirely disappeared. The circumference of the limbs was alike at every part, the temperature the same, and the patient walked without any lameness. Mr. Dartnell remarked that, as far as he was aware, there was no case on record of popliteal aneurism where the cure by compression had been so rapidly successful.

DR. MONRO alluded to the case which had occurred in the Coldstream Guards, and which, as the author of the paper had stated, furnished him the means of displaying to the Society the beautiful preparation on the table. The patient was admitted into hospital on the 19th of April, 1852, with popliteal aneurism of the left leg, about the size of a small orange. Compression was commenced on the 22d, by means of an instrument invented by Mr. Phillips, of the Westminster Hospital. The pressure was made at first on the artery, immediately below Poupert's ligament. In about two hours, however, so much pain was complained of that the instrument was removed. Being convinced that the

pain complained of was excited more by alarm than anything else, manual pressure was made next day, about an inch and a half below the origin of the profunda, and this was kept up by the assistance of the convalescents in hospital for three days, for about eight hours each day. The man did not complain of any pain by this method, and said that he thought he could now bear the employment of an instrument; a clump tourniquet was accordingly placed on the thigh on the 26th, and moderate pressure only made on the artery; the sac was allowed to pulsate feebly. On the eighth day, the pulsation in the sac had entirely ceased, although no greater pressure had been made, and it had become considerably harder and smaller. The tourniquet, therefore, was removed, and nothing further was done than keeping the man in bed. He was dismissed to his duty on the 2d of July, the functions of the limb having been restored. On the 19th of November of the same year he returned to hospital with aneurism of the abdominal aorta, and died suddenly on the 10th of December. It being a good opportunity for obtaining a preparation showing the collateral circulation in the affected limb, a coloured injection was thrown into the common iliac, on that side; and the result was, as is now observed on the 10th, a most beautiful preparation. One circumstance remarkable in the preparation is, that the femoral artery and vein, from the brim of the pelvis to nearly the centre of the popliteal space, are unobstructed and of the natural calibre.

Dr. RICHARDSON related the following case of popliteal aneurism, which was then under treatment in the hospital of the Fusilier Guards: Sergeant Robert Legg, aged 28, of 11 years' service, was admitted on September 10th, 1856, with a large aneurism, occupying almost the entire popliteal space of the left lower extremity. All the characteristic symptoms were present, and the tumour was very elastic, and about the magnitude of the largest sized orange. The disease was first noticed three months since. Pulsation was felt in the arteries of the foot, and the veins of the leg were distended. Three arterial compressors of different forms, but all calculated to compress the main vessel without otherwise impeding the circulation of the limb, were applied; one was placed over the arch of the pubis, the second just below the orifice of the profunda, and the third at the lower part of Hunter's canal. His diet was moderately nutritious. The instrument at first occasioned pain; but, on the pressure being frequently changed from one point to another, he soon bore it well. In a few days the pulsation had almost ceased, whilst the pressure was continued, and the tumour began to solidify. On the 26th of September the pulsation had entirely ceased, whilst the pressure from the pads had been in the interim diminished. On the 3d of October, he stated that, during the past night, he had felt severe pain, followed, he thought, in the morning, by a more marked diminution of the tumour. It continued to decrease gradually, and become solid, until the 19th, when the apparatus (in consequence of the entire cessation of pulsation) was taken off. The measurement of the limb, which at first was 15½ inches round the apex of the tumour, at the last date was but 14½ inches. He has since been allowed to get up, and use moderate exercise. No constitutional disturbance ensued during the treatment except an attack of diarrhoea, which continued rather severe for about a week. For a fortnight, he took the following pill twice a day: Plumbi acet. gr. ij; pulv. opii, gr. ½. The man can walk about at the present time with very little inconvenience.

Dr. JEPHSON, surgeon of the 1st Dragoon Guards, also forwarded the following case to the Society, which was read by the Secretary: Private Charles McIvors, aged 29, a healthy-looking soldier, of nine years' service, was admitted into the Regimental Hospital on the 14th November, with popliteal aneurism of the right leg. He stated that, on the 9th of August, when disembarking at Portsmouth, he felt for the first time, when exerting himself, a sensation of weakness in the right leg. A few days afterwards he marched to Aldershot, and when riding felt an uneasiness not amounting to pain. In the beginning of October, the leg became swollen from the knee downwards, but did not prevent him from doing his duty, and was unattended with pain. On the 1st of November he marched from Aldershot to Exeter, where he arrived on the 10th, being five or six hours daily in the saddle. During this time he suffered considerable pain down the leg, which became more swollen; and on the 14th he

reported himself sick. The right leg and ankle were much swollen and œdematous, the superficial veins being very prominent and distended. He stated that he had great pain, of a shooting kind, down the leg when he moved about, which did not exist on lying down. Upon examining the popliteal region, a large pulsating tumour was discovered, and on being questioned, he stated that he had observed a fulness there two nights previously, but thought nothing of it. The tumour was about the size and shape of a goose egg, projecting much to the outer side, the pulsation being entirely controlled by pressure on any part of the femoral artery, when the tumour entirely subsides, leaving a loose flabby-feeling sac; on allowing the blood to return, he suffered great pain in the tumour. The measurement around the leg, at that part, was  $1\frac{3}{4}$  inch greater than on the opposite extremity at the same site. No pulsation could be felt in the posterior tibial artery. The heart's action was increased, but quite healthy. Pulse 92, full and strong. V. S. ad  $\text{Æxvj}$ ; and take pulv. jalapæ co.  $\text{ʒij}$  statim. The diet was reduced to 6 ounces of bread,  $\frac{1}{2}$  pint of milk, and 2 ounces of butter daily.

16th and 17th. The tumour suddenly enlarged, and pointed towards the outer side. R. Pulv. jalapæ co., also tinct. digitalis  $\text{m. xv.}$ , ter die. Pulse still above 90.

24th and 25th. The tumour has not been increasing so rapidly since he has taken the digitalis, and his pulse is reduced to 84. Complaints of weakness, but has little pain in the leg. The thigh was shaved, and a twenty-grain solution of argent. nitrat. applied three times over the skin of the groin, and front of the thigh. 27th. Pulse 94. From the 14th, the measurement over the tumour had increased  $1\frac{1}{4}$  inch, and the limb now was 3 inches more in circumference than the same part of the left leg. On this day, at 3 o'clock P. M., pressure was commenced in the groin, with Carte's hip apparatus, when the pulsation in the tumour was completely stopped, and also (he says) the pain complained of in the leg. The pressure was obliged to be increased from time to time as pulsation returned in the tumour. At 5 o'clock P. M., he complained of an indescribable sensation of weakness; the pulse was 62, slow, soft, and full; but on examining the tumour it was found beating as strong as ever, and the fissure was increased. 12 o'clock P. M. He complained much of the pressure. Carte's circular compressor was used over the middle of the femoral artery, and the pulsation in the tumour controlled by it, instead of by the hip apparatus. On the 28th, the pulse varied between 50 and 60 during the whole night, but about 4 o'clock A. M. it rose to 78. He slept for several hours during the night. The pressure, which now caused very little pain, was changed about every six hours, from the middle of the thigh to the groin, and *vice versa*. The pulsation in the tumour not being allowed to return during the change, he complained of being very drowsy.

29th. At 3 o'clock A. M. to-day, on removing the pressure, there was no return of pulsation, and the tumour had become quite solid. The temperature of the foot and leg was natural. At 5 o'clock P. M. he complained of being hot and feverish, the bowels not having been moved since the morning of the 27th. To take a castor-oil draught.

30th. Feels quite well, but weak; tumour solid.

Dec. 4th and 5th. Pulse 84; œdema and swelling of the leg much reduced, and the measurement over the tumour was increased more than an inch. Pulsation in a small superficial artery over the back of the tumour to be felt; experienced some difficulty in keeping the patient quiet, as he considers himself quite well, except for some stiffness in the back of the knee.

Dr. JEPHSON remarked that this was a very successful case of cure by compression in thirty-six hours, and was one of the kind of cases, according to some authorities, which did not admit of that mode of treatment. It was an interesting circumstance to observe the falling of the pulse from 94 to 62, about two hours after pressure was commenced, and its continuing for eleven hours to vary from 50 to 60, when it increased to 78. The solution of nitrate of silver was used with the view of rendering the skin less sensitive, and tolerant of pressure. The success of the treatment of aneurism by compression will, he thought, be found to depend greatly on the kind of instruments used, and on the case being closely watched. In this case, pulsation returned in the tumour

more than fourteen times during the first night, after compression had been resorted to. To the care and close attention paid to the case by Mr. Andrews, the assistant-surgeon of the regiment, he was indebted for so quickly bringing it to a successful issue.

Dr. MACLACHLAN believed that if the records of the Medical Board were examined, a large number of cases would be found among the soldiers invalidated, who had previously been cured of popliteal aneurism by compression. Considered that the paper read to the Society by Mr. Blenkins was a purely practical one, which, in a Society of this kind, was so much to be desired. The interests of a patient affected with popliteal aneurism would be much neglected if the surgeon neglected to resort to compression. He alluded to the case of an old pensioner at Chelsea Hospital, who would not at first submit to the treatment by compression; in this case, it was diagnosed that the whole arterial system was diseased, and fourteen days after the application of pressure, the aneurism burst into the muscles of the leg; the artery was tied, gangrene followed, and the limb was amputated; hemorrhage subsequently took place from the site of ligature; but the opening through which the blood flowed was small, and by pressure of the finger over the orifice the bleeding was arrested, but the man sank. At the *post mortem* examination two aneurismal sacs were found, but there was no obliteration of the vein; the sheath of the vessels, however, had united itself so closely to the coats of the artery that it was very difficult to pass a needle around it; this was to be ascribed to the effects of the pressure, and was a most desirable end; indeed, when compression had been employed, an obstacle of this kind may be anticipated as likely to happen.—*Med. Times and Gaz.*, Jan. 3, 1857.

38. *Seventy-eight Cases of Surgical Aneurism.*—JONATHAN HUTCHINSON, Esq., has published (*Med. Times and Gaz.*, Nov. 22 and 29, 1856) a tabular statement of seventy-eight cases of surgical aneurism. We have only space for the following analysis of the series, with comments:—

The table embraces 78 cases of aneurism or pulsating tumours involving large vessels treated under various plans, with the result of 57 perfect recoveries, 2, the disease remaining unrelieved, and 19 deaths. These relative numbers, when we consider the importance of the vessel involved in a considerable proportion of the cases, must be considered highly satisfactory. Of the fatal cases, 1 was after ligature of the abdominal aorta, 3 after that of the common carotid, 2 of the subclavian, 2 of the external iliac, and 10 of the superficial femoral. In 1 case death followed amputation of the thigh, consequent on the aneurism having become diffused, no ligature having been applied. All the cases, 5 in number, in which either the aorta (1), the common carotid (2), or the subclavian (2), were tied, ended in death. Of those in which the external iliac was tied, 3 recovered, and 2 died. Of those of ligature of superficial femoral 23 recovered, and 10 died. All those in which either the brachial or the ulnar were tied recovered. These proportions are expressed in the following table:—

Ligature cases.	Number.	Recovered.	Died.
Of abdominal aorta . . . . .	1	—	1
Of common carotid . . . . .	2	—	2
Of subclavian . . . . .	2	—	2
Of external iliac . . . . .	5	3	2
Of femoral—			
No previous trial of compression . . . . .	9	6	3
After failure of compression . . . . .	22	16	6
In Hunter's canal for pulsating tumour in tibia . . . . .	1	—	1
Tumour laid open and the bleeding vessels secured . . . . .	1	1	—
Total . . . . .	43	26	17

Of the causes of death, we have in the case of ligature of the aorta, the *collapse consequent on the operation*; in 1 of the 2 cases of ligature of the subclavian, *constitutional irritation*, etc., and in the other *secondary hemorrhage*; in 1